

**REMARKS**

The above amendments and these remarks are responsive to the Office Action mailed July 12, 2005. Prior to entry of this amendment, claims 1-27 are pending. Claims 12-21 and 24-27 are allowed. Claims 1 and 22 have been amended.

Applicants thank the Examiner for consideration of the application. In the Office action, claims 22 and 23 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claims 1-3, 7-11, 22 and 23 are rejected under 35 U.S.C. § 102(e) as being anticipated by Hori (US Patent Number 6,557,505). Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hori.

Applicants respectfully traverse the rejections, but nevertheless amend the claims as indicated above. In view of the remarks below, and the amendments above, Applicants respectfully request reconsideration of the application under 37 C.F.R. § 1.111 and allowance of the pending claims.

**A. Claim Rejections Under 35 U.S.C. § 112****Claims 22 and 23**

Claims 22 and 23 have been rejected under 35 U.S.C. § 112, second paragraph as being indefinite because there is insufficient antecedent basis for "said first cylinder group" and "said second cylinder group." Applicants have amended claim 22 to add the antecedent basis for above limitations. Thus, Applicants respectfully submit that the rejections have been overcome.

**B. Claim Rejections Under 35 U.S.C. § 102(b)****Claims 1-3, 7-11**

Claims 1-3, 7-11 have been rejected under 35 U.S.C. §102(b) as being anticipated by Hori. Applicants respectfully traverse the rejection, but nevertheless amend the Claim 1 as indicated above.

Hori discloses a control device for an engine provided with electromagnetically driven intake valves. The device is constructed to independently control an operation timing of the intake valve in each cylinder. As shown in Fig. 11 and Fig. 12 of Hori, one group of cylinders operating in a rich mode has a short intake valve opening time and another group of cylinders operating in a lean mode has a long intake valve opening time. The only difference in the two groups is intake valve timing.

Unlike Hori, claim 1 recites “a controller operating a group of valves in said first cylinder group that is different from a group of operating valves in said second cylinder group, during a cycle of said engine, wherein the difference between said first cylinder group and said second cylinder group is at least one of a number of operating valves per cylinder, and a region of operating valves in a cylinder head.” In contrast, Hori does not disclose that the difference between two groups of cylinder is a number of operating valves per cylinder or a region of operating valves in a cylinder head. Thus, Hori fails to disclose all the limitations of claim 1. Applicants respectfully request that the rejection be withdrawn.

Claims 2-3, 7-11 are dependent upon claim 1. Applicants respectfully request the rejections be withdrawn for at least the reasons argued for claim 1.

**Claims 22-23**

Claims 22-23 have been rejected under 35 U.S.C. §102(b) as being anticipated by Hori. Applicants respectfully traverse the rejection, but nevertheless amend the Claim 22 as indicated above.

Claim 22 recites "instructions to select and operate a group of valves in said first cylinder group that is different from the group of operating valves in said second cylinder group, during a cycle of said engine, wherein the difference between said first cylinder group and said second cylinder group is a number of operating valves per cylinder." As noted above, in Hori, the difference between two cylinder groups is the intake valve timing. Since Hori does not disclose that the difference between two groups of cylinder is a number of operating valves on each cylinder, Hori does not include all the limitations of claim 22. Thus, Applicants respectfully request that the rejection be withdrawn.

Claim 23 is dependent upon claim 22. For at least the reasons argued for claim 22, Applicants respectfully request the rejections be withdrawn.

**C. Claim Rejections Under 35 U.S.C. § 103(a)****Claims 4-6**

Claims 4-6 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Hori. Applicants respectfully traverse the rejection. Claims 4-6 are dependent on claim 1. For the reasons argued above for claim 1, Hori does not include all the limitation of claim 1.

Further, Applicants disagree that the number of valves per cylinder is an obvious matter of design choice. Three, Four, or Five valves in each cylinder provide the ability to operate one group of cylinders differently from another group of cylinders in terms of a number of operating

valves per cylinder and a region of operating valves in a cylinder head.

Thus, Hori does not teach, disclose, or suggest the limitation of claims 4-6. Applicant respectfully request the rejections be withdrawn.

Based on the foregoing comments, the above-identified application is believed to be in condition for allowance, and such allowance is courteously solicited. If any further amendment is necessary to advance prosecution and place this case in allowable condition, the Examiner is courteously requested to contact the undersigned by fax or telephone at the number listed below.

Please charge any cost incurred in the filing of this Amendment, along with any other costs, to Deposit Account 06-1510. If there are insufficient funds in this account, please charge the fees to Deposit Account No. 06-1505.

**CERTIFICATE OF FACSIMILE**

I hereby certify that this correspondence is being sent via facsimile to the U.S. Patent and Trademark Office at (571) 271-8300 on September 12, 2005.

  
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Respectfully submitted,

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